

Date: Monday, 4/10/2006 12:03:42 PM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : WEARPLATE
Job Number : 26623	
Estimate Number : 10621	
P.O. Number : N/A	Part Number : D34603
This Issue : 4/10/2006 S.O. No. : N/A	Drawing Number : D3460 / D2577
Prsht Rev. : NC	Project Number : N/A
First Issue : 4/10/2006 Type : PURCHASED PARTS	Drawing Revision : A / E
Previous Run : 25643	Material : N/A
Written By : <u>See comment below</u>	Due Date : 4/17/2006 Qty: 30 Um: Each
Checked & Approved By : <u>06.04.10</u>	
Comment : Est: A 05.10.20 New Issue KJ/EC	
Est: B 06.03.01 Removed joggle on end EC	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	PG	PURCHASING
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Comment: PURCHASING

Issue P/O: 984

Email or Ship DXF file to vendor

Laser Cut D2577-101 flat pattern as per Dwg D2577

Material release note required

C206104110 (30)

2.0	D2577101F	Wearplate (flat pattern)
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Comment: Qty.: 1.0000 Each(s)/Unit Total: 30.0000 Each(s)

WEARPLATE

3.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1

Receive & Inspect for Transit Damage

Ensure Material Release Note is attached

06/04/18 31

4.0	QC6	DIMENSIONAL CHECK
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Comment: DIMENSIONAL CHECK

Inspect dimensions as per inspection template D2577-101T

06.04.18

5.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
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Comment: SMALL & MEDIUM FAB RESOURCE 1

Deburr if necessary

W/A SB 06/05/08 31

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes \ No DQA: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 4/10/2006 12:03:43 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: WEARPLATE

Job Number: 26623

Part Number: D34603

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

BRAKE NC

NC BRAKE



Comment: NC BRAKE

1- Form on brake using DT8155 and DT8179 as per Dwg D2577 Rev: A

FF 06.04.20

34

2- Form Detail "A" joggle using DT8157 as per Dwg D3460 Rev: A

Identify as D3460-3

SB 06/05/08

31

7.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

06.05.08 (31)

8.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Weld hard surface using DT8308A & DT8308B as per Dwg D3460 Rev: A

M.F. 06/05/15

30

Qty Part Number Description Batch

A/R N/A

7560 Hardcoat Rod

M100780 + M100942

H.M. 06/05/15

30

9.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

06.05.15 (34)

10.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat Grey Sandtex (Ref: 4.3.5.6) as per QSI 005 4.3

DL 06/06/01

(50)

11.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

Q.M. 06-06-02

(30)

12.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: FP 20

DL 06/06/02

(50)

13.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

DL 06/06/05

(31)

u 06/06/05

WORK ORDER CHANGES

W/O:							
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: SP Date: 06/06/05
 QA: N/C Closed: _____ Date: _____

WORK ORDER NON-CONFORMANCE (NCR)

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART



RELEASED
00.04.26

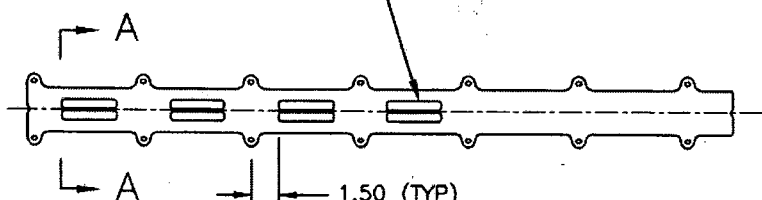
DESIGN	DRAWN BY	DART AEROSPACE LTD	REV. E
CHECKED	APPROVED	DRAWING NO. D2577	SHEET 1 OF 5
DATE 00.09.22	TITLE WEARSHOE	SCALE 1:10	
A	96.09.16	NEW ISSUE	
B	96.12.04	ADD HARDCOAT WELDS	
C	97.05.30	CHANGE HOLES TO OBROUNDS	
D	98.08.17	CORRECTED DIMENSIONS ON -1 & -3	
E	00.09.22	ADD D2577-101/-11/-13 INCORPORATE DEC9176	

7560 HARDCOAT WELD
4.0 LONG
0.063 TO 0.125 HIGH
(TYP. 11 PLS.)
WELD AFTER BENDING AS
ILLUSTRATED PER DT8308

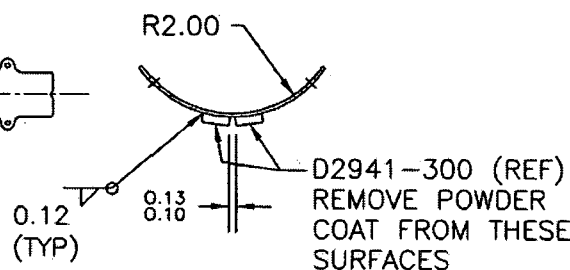


D2577-1 & D2577-3 WEARSHOE
MAKE FROM D2577-11 AND D2577-13 RESPECTIVELY
FINISH: POWDER COAT GREY (4.3.5.6) PER DART QSI 005 4.3
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED
SUBJECT TO ABE
WITHOUT NOTICE
WORK ORDER
26623
D2941-300
SHWAYDER WEAPADS
(8 PLACES)



SECTION A-A
SCALE 1:5

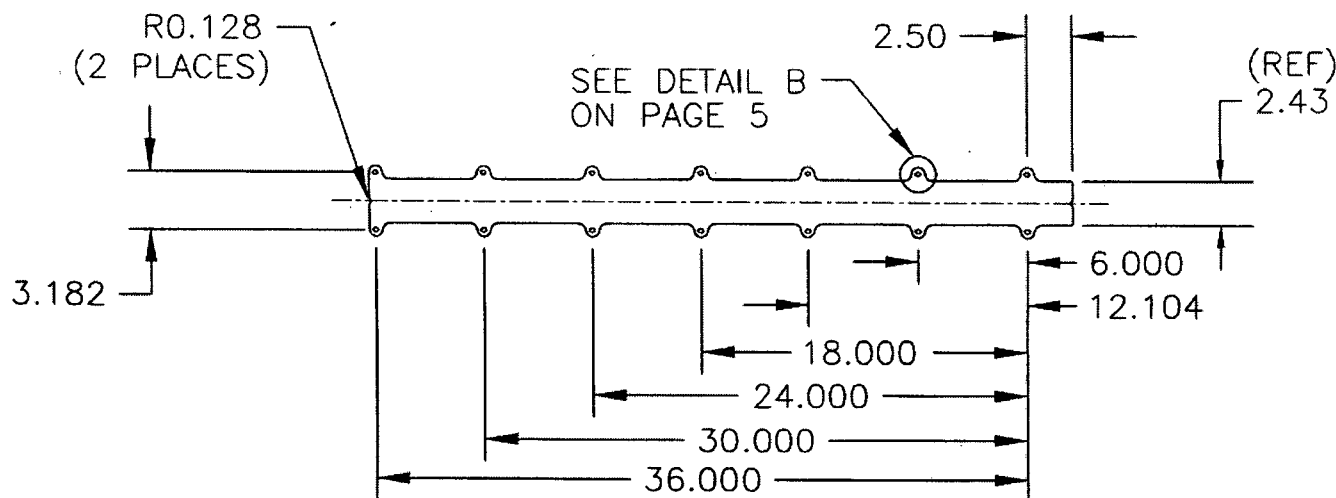


D2577-21 & D2577-23 WEARSHOE
MAKE FROM D2577-11 AND D2577-13 RESPECTIVELY
FINISH: POWDER COAT GREY (4.3.5.6) PER DART QSI 005 4.3
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

DART



DESIGN	DRAWN BY	DART AEROSPACE LTD HAMPSHIRE, ONTARIO, CANADA	REV. E
CHECKED	APPROVED	DRAWING NO. D2577	SHEET 2 OF 5
DATE 00.09.22		TITLE WEARSHOE	SCALE 1:10



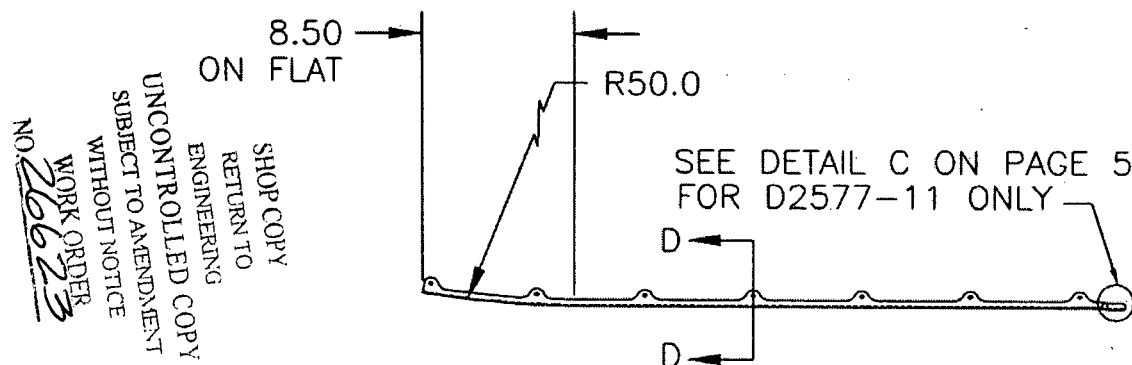
D2577-101 FLAT PATTERN

BREAK ALL SHARP CORNERS 0.010 TO 0.020

MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570

SERIES STEEL 0.063 THICK

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED



D2577-11 & D2577-13 LONGITUDINAL BEND

MAKE FROM D2577-101

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

RELEASED
00.09.26

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NO. 20623

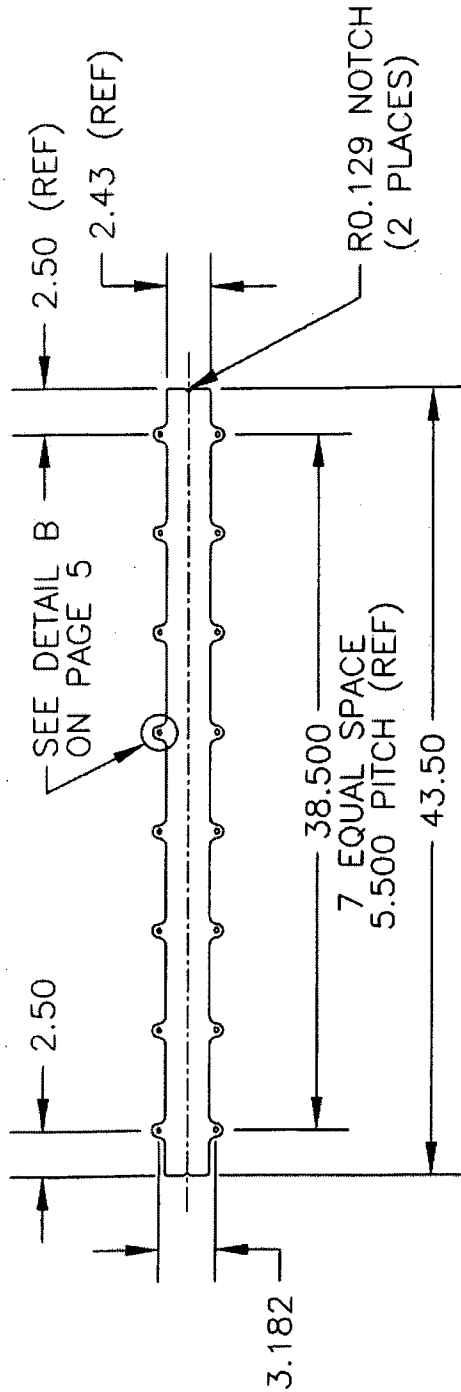
DART



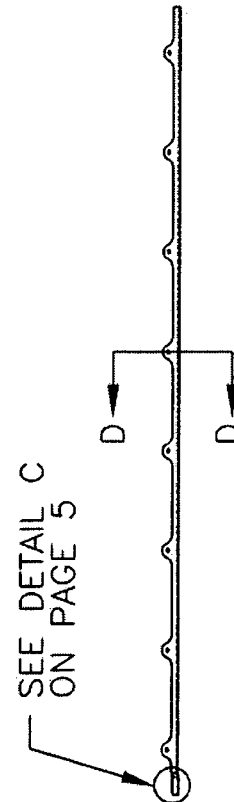
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CHECKED #	APPROVED #	DRAWING NO. D2577	REV. E SHEET 3 OF 5
DATE 00.09.22		TITLE WEARSHOE	SCALE 1:10

RELEASED
00.09.26

D2577-5 FLAT PATTERN



D2577-5 LONGITUDINAL BEND



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WITHOUT NOTICE
WORK ORDER
NO. 26623

D2577-5 WEARSHOE

BREAK ALL SHARP CORNERS 0.010 TO 0.020
MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570
SERIES STEEL 0.063 THICK
FINISH: POWDER COAT GREY (4.3.5.6) PER DART QSI 005 4.3
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

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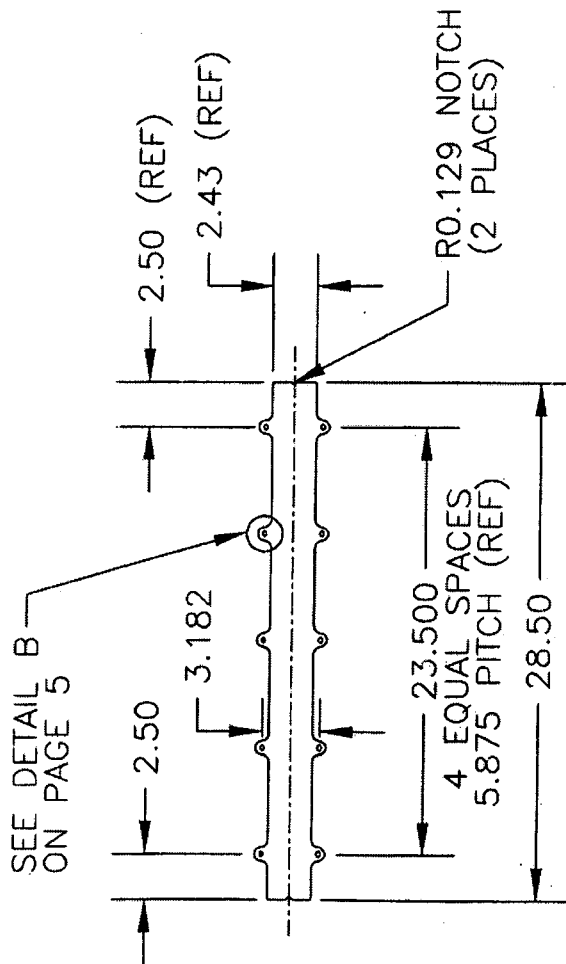
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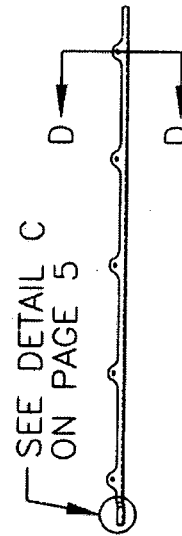
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CHECKED #	APPROVED #	DRAWING NO. D2577	REV. E SHEET 4 OF 5
DATE 00.09.22	TITLE WEARSHOE		SCALE 1:10

RELEASED
00.09.26

D2577-7 FLAT PATTERN



D2577-7 LONGITUDINAL BEND



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WITHOUT NOTICE
WORK ORDER
NO 26623

D2577-7 WEARSHOE

BREAK ALL SHARP CORNERS 0.010 TO 0.020
MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570
SERIES STEEL 0.063 THICK
FINISH: POWDER COAT GREY (4.3.5.6) PER DART QSI 005 4.3
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

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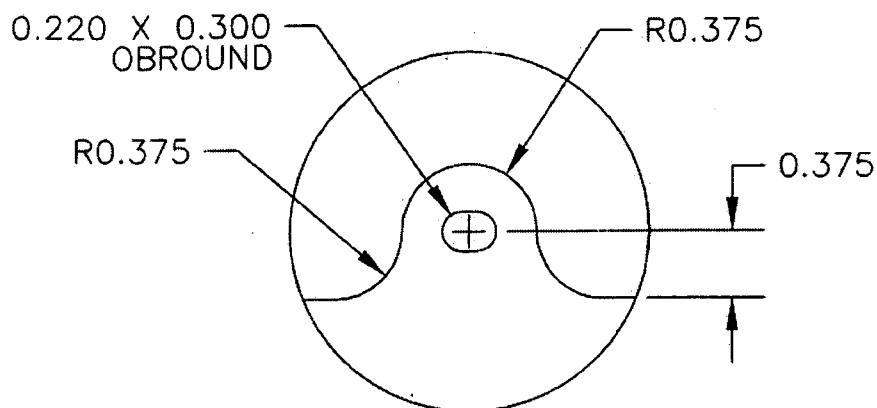
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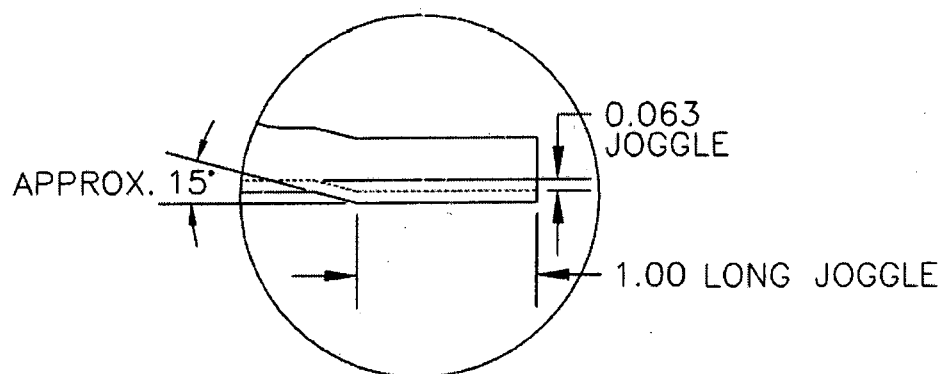
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CHECKED #	APPROVED #	DRAWING NO. D2577	REV. E SHEET 5 OF 5
DATE 00.09.22		TITLE WEARSHOE	SCALE 1:10

RELEASED
00.09.26

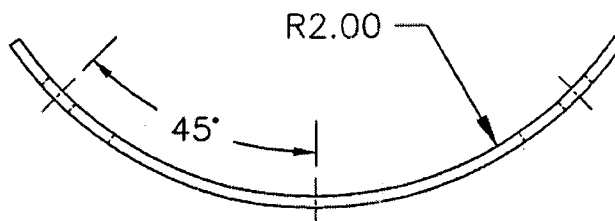
DETAIL B (SCALE 1:1)



DETAIL C (SCALE 1:1)



SECTION D-D (SCALE 1:1)



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NO 26623

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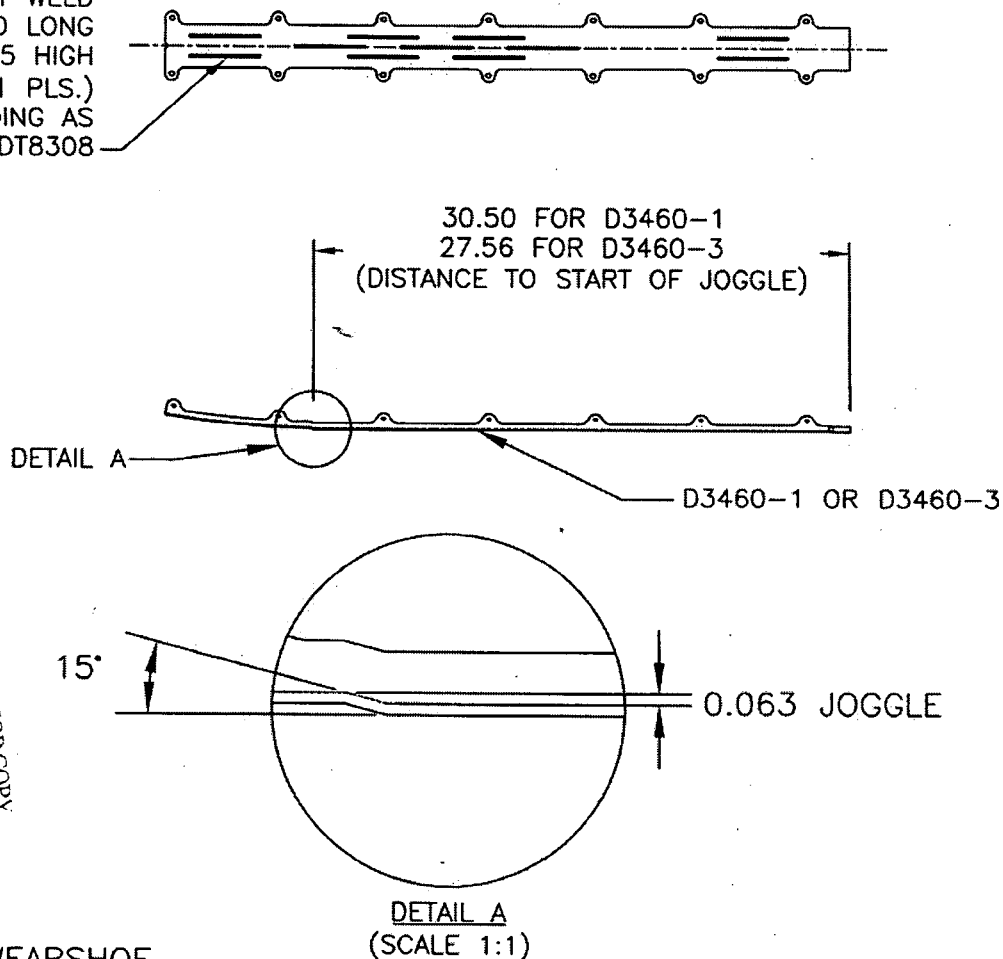
DART

RELEASED

05.11.14

DESIGN	DRAWN BY	DART AEROSPACE USA, INC.	
PH	PH	PORT HADLOCK, WA	
CHECKED	APPROVED	DRAWING NO.	REV. A
PH	PH	D3460	SHEET 1 OF 1
DATE	TITLE	WEARSHOE	SCALE
05.10.04			1:10
A	05.10.04	NEW ISSUE	

7560 HARDCOAT WELD
4.0 LONG
0.063 TO 0.125 HIGH
(TYP. 11 PLS.)
WELD AFTER BENDING AS
ILLUSTRATED PER DT8308



D3460-1/-3 WEARSHOE

- 1) MAKE D3460-1 FROM D2577-11 LONGITUDINAL BEND
- 2) MAKE D3460-3 FROM D2577-13 LONGITUDINAL BEND
- 3) WELD PER DART QSI 004
- 4) FINISH: POWDER COAT GREY (4.3.5.6) PER DART QSI 005 4.3
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 26623



New Zealand Steel Limited
 Onehunga, South Auckland
 Postal Private Bag 92011, Auckland, New Zealand
 Telephone: (09) 375 8996 / (07) 8111 Auckland
 (09) 238 6288 / (264) 3630 World
 Fax: (09) 375 8998

TEST CERTIFICATE

Ref: 537123517

CUSTOMER	Williams	P5050501002	SPECIFICATION	ASTMA1009 C1 Type A	CERTIFICATE No	20115838																	
CUSTOMER D/W	90-121-142		PRODUCT	CRA WIDE COIL	PAGE	1 of 1																	
MILL OR	48948		DIMENSIONS	0.035" x 48" x CoR	DATE	02 August 2005																	
PACK NUMBER	HEAT No	CHEMICAL COMPOSITION PERCENT														MECHANICAL TESTS (TEST SPECIFICATION - ASTM A370)							
		C	SI	Mn	P	S	Cr	Ni	Cu	Nb	V	RE	EL	AL	R	H2	CE	BEND	YIELD	T.S.	WELONG	HARDNESS	LENGTH
		x100					x1000					x10000		x100	180°		180°		180°		HRB	(Inch)	
R9-464017-00	844863	6	TR	20	7	17	15	23	14	2	3	3	3	3				Good				45	2015
R9-464011-00	844863	6	TR	20	7	17	15	23	14	2	3	3	3	3				Good				45	2064
R9-464019-00	779675	6	TR	20	34	16	11	21	13	1	3	3	3	3				Good				49	2418
R9-464024-00	779675	6	TR	20	14	16	11	21	13	2	3	3	3	3				Good				49	2125
R9-464021-00	779674	6	TR	21	13	17	13	22	17	2	3	3	3	3				Good				50	1923
R9-464021-00	779674	6	TR	16	13	17	13	22	17	1	3	3	3	3				Good				58	1978

YIELD	GAUGE LENGTH (GL)				PLASTIC STRAIN RATIO (r)				BARTOX TEST			CARBON EQUIVALENT VALUE (CE)		
(A)=0.2% PROOF STRESS	(M)=200mm	(C)=80mm	(E)=2"		(A)=0	(C)=0			(A)=10mm x 10mm	(B)=2.5mm x 10mm	(E)=5mm x 10mm	(A)=C+M/5	(D)=C+M/5+P/15	(D)=C+M/5+P/15
(B)=LOWER YIELD STRESS	(B)=40mm	(U)=5.65	(F)=0"		(B)=50	(D)=50+(20+245)14								

WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN TESTED AND INSPECTED
 WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION

APPROVED

DANISH MORA

DC METALLURGE

(538498-20010805054) 779675 R 1 E-1000001000